



Integrated Resource Planning

Presentation before the California Public Utilities Commission

Commissioner Philip B. Jones
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Intro: Regulated Energy Utilities

- **3 Electric Companies** (38% of statewide electric load)
 - Puget Sound Energy (Western WA)
 - Avista Corporation (Eastern WA)
 - PacifiCorp d/b/a Pacific Power and Light (Southeastern WA)
- **4 Natural Gas Companies** (996,000 customers statewide)
 - Puget Sound Energy (Western WA)
 - Avista Corporation (Eastern WA)
 - Cascade Natural Gas (Across WA)
 - Northwest Natural Gas (Southeastern WA)
- **WUTC does not regulate** – publicly owned electric utilities (e.g., municipalities, PUDs, cooperatives), BPA (Bonneville Power Administration), interstate pipeline operators

Overview

- Provides a long-term perspective on the “lowest reasonable cost” resource portfolio – 10-20 years
- Technology-neutral
- Sophisticated modelling techniques with deterministic inputs
- Treats supply-side and demand-side resources equally
- Adaptable planning tool – can be repurposed based on public policy changes
- Provides a means to establish risk boundaries in a generic way

Process and Timing

- Rolling iterative two-year process
- Extensive stakeholder engagement:
 - Key role for Commission Staff and Advisory Groups
 - Gather input on assumptions, scenarios, sensitivities early in the process
 - Public and private meetings – key materials posted on utility's website and vetted publicly
- Recessed open meeting – informal, workshop format

Preferred Portfolio / Action Plan

- Key outcome is a “blueprint” of actions for the next two years (short-term) and twenty years (long-term)
- Based on lowest reasonable cost standard
- Not necessarily least-cost across all technologies, due to resource preferences (RPS, EERS)
- Action Plans are largely subjective based on decisions of senior utility management

Rulemaking Process - IRPs

- Northwest Power and Conservation Act: Established the Northwest Power and Conservation Council
- The Council developed its first Electric Power Plan in 1983 for four-state region (the Bonneville footprint)
- 1980s: UTC developed IRP rules

Rulemaking Process – RPS / EERS

- 2006: RPS and EERS passed by citizen's initiative
 - UTC for IOUs, Commerce for consumer-owned utilities
 - UTC: first rulemaking was complex with a large number of stakeholders
- 2009 compliance filings were somewhat contentious. These are filed every two years, and have become more routine.
- 2012-2014: UTC conducted major rulemaking to update rules to address incremental hydropower calculations, incremental cost, excess conservation, low-income weatherization, and a new reporting requirement for energy and emissions intensity metrics.

Other Commission Processes

- General Rate Cases (GRCs): burden of proof for certain resource acquisitions, for cost recovery purposes and the prudence standard
- Compliance filings – RPS / EERS
- Dept. of Commerce Fuel Mix Report
- Distributed Generation docket, other policy dockets
- Legislative committee oversight, hearings, and workshops
- Coordination with Commerce / State Energy Office / State Auditor on uniform counting and methodology

Acknowledgement of IRPs

- Letter sent by Executive Director, not Commissioners
- Not pre-approval
- Separate docket for each IRP for each utility
- Recessed open meeting, informal workshop style, or a separate public comment hearing
- In recent years, the issues of out-of-state coal generation resources have become contentious. This has required more public comment process.
- May raise specific issues for future workshops on IRP modelling, EM&V, energy storage, the use of LOLP for resource adequacy, and uniform counting methodologies (such as ELCC for variable resources.)

Challenges and the Future of IRPs

- Load forecasting dilemmas (lower GDP growth, more DER in system, more energy efficiency.)
- Public policy preferences:
 - RPS: 50% in CA and OR. WA at 15%
 - This makes the planning environment more challenging
 - Carve-outs for specific resources
- How to model externalities?
 - Price of carbon – what to use in the absence of a market?
 - Other externalities

Challenges and the Future of IRPs

- New technologies – uncertainty about maturity and future cost curves
 - DER resources
 - Other non-wires solutions
 - Energy storage
- Subjective (utility management decisions) vs. objective
- Transmission expansion modelling
- Cost-effectiveness tests: use of TRC, UCT, or SBT for energy efficiency measures is often controversial and debated.

Challenges and the Future of IRPs

- REC modelling and counting: concern about double-counting
- Registration in WREGIS
- Keeping “politics” out of the planning process
- Accommodating all various interests in scenario planning the number of sensitivities that can be requested and run by the utility planner.

QUESTIONS?